



PORT OF MANCHESTER

ANNUAL REPORT

OF THE

Medical Officer of Health

TO THE

PORT HEALTH AUTHORITY

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REPORT

by the

Medical Officer of Health

to the

CHAIRMAN AND MEMBERS OF THE
PORT HEALTH AUTHORITY,

I have the honour to present the Annual Report on the work of Port Health Administration in the Port of Manchester during the year 1953, in accordance with Article 17(5) of the Sanitary Officers (Outside London) Regulations, 1935 and 1951.

This Report is presented in the form desired by the Minister of Health, and the statistical information is arranged in the form and sequence indicated in Circular 21/53 of the Ministry, dated 20th October, 1953, and Form Port 20. Following the receipt of a letter from the Ministry of Health, 4th February, 1954, the first sub-heading to Table G, Section XIII, has been amended to read "Category of Nuisance and Number of Inspections."

It is pleasing to report that through the co-operation of the Manchester and Liverpool Regional Hospital Boards arrangements have been made for Mass Radiography facilities to be available for ships' crews at any time that they are requested by a ship's Master or at the discretion of the Port Medical Officer. If re-examination should be considered desirable arrangements would be made for such investigation to be carried out at the local Chest Clinics and General Hospitals, if possible, or information forwarded to the patient at the next port of call.

The advent of Sodium Fluoroacetate ('1080') and insecticidal lacquers gives rise to hopes of further and lasting success against rodent and vermin infestations. I should like to thank the Authority for allowing two of their Sanitary Inspectors to attend demonstrations at London and Liverpool. The information obtained at these demonstrations proved that these new preparations should be suitable for use in this Port, and I feel that the Authority's action in consenting to the use of '1080' by approved servicing companies will be fully justified by results.

Experimental work has been carried out with insecticidal lacquers and the results proved most encouraging.

The first entry into the new Eastham Oil Dock took place on 18th December, 1953, and the regular use of this dock following the official opening on 19th January, 1954, when it was named the Queen Elizabeth II Dock, will give rise to considerable extra travelling for your Inspector at that end of the Port. It will be recollected that one of the Senior Medical Officers of the Ministry of Health, when he visited the Port in

December, 1950, considered that the position arising from increased traffic at that end of the Canal should be kept under review and considered by the Authority at a future date.

The continued assistance and co-operation of the Officers of H.M. Customs and Excise, the Ministry of Food, and staffs of the Manchester Ship Canal Company, Shipping Companies and Agents, is gratefully acknowledged.

I must refer to the deaths during the year of two former Chairmen of the Authority—Sir Thomas Robinson, K.B.E., J.P., and Alderman W. W. Crabtree—and of the late Clerk to the Authority, Mr. A. H. Flint. Appreciation of the interest shown in the work of the Authority by Sir Thomas Robinson has frequently been expressed, and by his death the Authority loses its last remaining original member. The sudden death of his successor, Alderman Crabtree, after four years as Deputy Chairman, was a loss both to the Authority and the Association of Sea and Air Port Health Authorities, on which he was an active member. His keen interest in all aspects of Port Health work was one which was much appreciated. Mr. Flint, who was Clerk to the Authority from 1926 until his retirement in 1950, died in November, 1953. I should like to record my appreciation of his co-operation, without which the harmonious working of the Authority could not have been carried out.

Finally, I would take this, my last, opportunity of expressing to the members of the Authority my grateful appreciation of their unfailing courtesy and loyal support, without which the important responsibilities and duties of the Authority could not so efficiently have been discharged. The unobtrusive way in which these duties have been carried out is a tribute to the tact and efficiency of every member of the Authority's staff. It is a personal pleasure to acknowledge my indebtedness to them for their friendly and willing co-operation.

E. H. WALKER,

Medical Officer of Health.

Port Health Office,
168, Trafford Road, Salford 5.

Members of the Port Health Authority.

The membership of the Authority for the year was as follows :—

Authority represented :	
Alderman T. M. LARRAD, J.P. <i>(appointed Chairman 29th June, 1953)</i> Alderman J. E. FITZSIMONS, J.P. Councillor J. BOWES Councillor B. S. LANGTON	Manchester.
Alderman W. W. CRABTREE <i>(Chairman—died 28th May, 1953)</i> <i>succeeded in October by</i> Alderman S. W. DAVIS Alderman J. BRETNALL, J.P. Councillor C. BROOKES Councillor J. HALL	Salford.
Alderman H. LORD, M.B.E., J.P.	Stretford.
Alderman A. A. J. TRIPPIER <i>(Deputy Chairman)</i>	Irlam U.D. Borough of Eccles. Urmston U.D.
Councillor E. C. BROOKER, J.P.	Lymm U.D. Runcorn R.D. Runcorn U.D. Bucklow R.D.
Councillor D. H. BREW, J.P.	Warrington C.B. and R.D.
Alderman P. HANLEY	Borough of Widnes. Borough of Bebington. Ellesmere Port U.D.

SECTION I : Staff.

TABLE A.

NO CHANGE.

SECTION II : Amount of Shipping entering the district during the year.

TABLE B.

Ships from	Number	Tonnage	Number inspected:		Number of ships reported as having, or having had during the voyage, infectious disease on board.
			By the Medical Officer of Health	By the Sanitary Inspectors	
Foreign Ports...	1,764	4,072,484	126*	1,467	13
Coastwise	2,791	1,747,879	—	579	1
Total	4,555	5,820,363	126*	2,046	14

* Visited by Boarding Medical Officers, Liverpool Port Health Authority, in R. Mersey.
 "Foreign" excludes ports in the Irish Republic.

SECTION III :**Character of Shipping and Trade during the year.**

TABLE C.

Passenger Traffic :

Number of passengers INWARDS : 665.

Number of passengers OUTWARDS : 907.

Cargo Traffic :

Principal IMPORTS :

Beer and Porter, Chemicals, Coal and Coke, Copper, Cotton, Flour, Meal &c., Foodstuffs, Fruit, General Cargo, Grain, Iron, Oil, Paper, Cotton Waste, Sand and Gravel, Spelter, Pig Lead &c., Starch, Farina &c., Stone &c., Sulphur, Tea, Timber, Woodpulp and Wool.

Principal EXPORTS :

Chemicals, Coal, Flour, Meal &c., Foodstuffs, General Cargo, Iron, Machinery, Motor Spirit, Oil, Paper, Cotton Waste &c. Pitch, Salt, Textiles and Woollen Goods.

Total Traffic, 1953 : 12,485,071 tons.

Total Traffic, 1952 : 11,861,449 tons.

PRINCIPAL PORTS FROM WHICH SHIPS ARRIVE :

Antarctic	...	...	...	...	Whaling grounds.
Argentina	...	...	...	...	Bahia Blanca, Buenos Aires and Rosario.
Australia	...	...	...	...	Adelaide, Brisbane, Fremantle, Geraldton, Melbourne, Port Kembla, Port Pirie and Sydney.
Belgium	...	...	...	...	Antwerp and Ghent.
Brazil	...	...	...	...	Porto Alegre, Rio de Janeiro, Rio Grande and Santos.
Bulgaria	...	...	...	...	Bourgas.
Canada	...	...	...	...	Campbellton, Clarke City, Cornerbrook, Dalhousie, Halifax, Montreal, Newcastle, N.B., Pugwash, Quebec, St. John, Vancouver, Sydney, C.B., Three Rivers, Port Alberni, Wabana and Great Lakes ports.
Channel Isles	...	...	...	...	Guernsey.
Ceylon	...	...	...	...	Colombo.
Cuba	...	...	...	...	Havana.
Cyprus	...	...	...	...	Famagusta, Limassol and Morphou Bay.
Denmark	...	...	...	...	Aalborg, Aarhus, Copenhagen, Esbjerg, Frederikshavn and Odense.
East Africa	...	...	...	...	Beira, Lourenco Marques and Mombasa.
Egypt	...	...	...	...	Alexandria, Port Said, Port Sudan and Suez.
Eire	...	...	...	...	Arklow, Buncrana, Cork, Drogheda, Dublin, Dundalk, Galway, Limerick, Waterford, Wexford and Wicklow.
Finland	...	...	...	...	Abo, Hamina, Hango, Haukipudas, Helsingfors, Kotka, Lovisa, Mantyluoto, Oulu, Raumo, Toppila and Yxpila.
France	...	...	...	...	Bayonne, Blaye, Bordeaux, Caen, Dunkirk, Le Havre, Lorient, St. Valery, Sete, Nantes, St. Nazaire, Paris, Rouen and Treport.
Germany	...	...	...	...	Bremen and Hamburg.
Greece	...	...	...	...	Patras, Piraeus, Salonica and Volo.
Holland	...	...	...	...	Amsterdam, Delfzijl, Dintalsaas, Terneuzen and Rotterdam.
Iceland	...	...	...	...	Reykjavik and Vestmanhavn.
India	...	...	...	...	Bombay, Calcutta, Cochin and Vizagapatam.
Indonesia	...	...	...	...	Balik Papan.
Israel	...	...	...	...	Haifa, Jaffa and Tel-Aviv.
Italy	...	...	...	...	Genoa, Palermo, Ponza, Messina, Savona and Trieste.
Lebanon	...	...	...	...	Beyrout, Sidon, Tripoli and Zaharani.

Principal Ports from which Ships Arrive—*Continued.*

Ne herlands West Indies ...	Aruba and Curacao.
Nicaragua	Puerto Cabezas.
North Africa... ..	Algiers, Bona, Bougie, Oran, Ceuta, Casablanca, La Goulette, Melilla, Philippeville, Sousse and Tunis.
Norway	Aalvik, Arendal, Bergen, Christiansand, Drammen, Foldafos, Frederikstad, Halden, Kragero, Larvik, Narvik, Oslo, Risor, Sandefjord, Sarpsborg, Skien, Stavanger and Trondhjem.
Pakistan	Chittagong and Karachi.
Persian Gulf	Kuwait, Mena al Ahmadi, Ras Tanura and Umm Said.
Peru	Cabo Blanco, Callao and Lobitos.
Poland	Gdansk (Danzig) and Gdynia.
Portugal	Leixoes, Lisbon and Setubal.
Roumania	Constanza.
Russia	Archangel and Leningrad.
South Africa	Capetown, Durban, East London, Port Elizabeth and Walvis Bay.
Spain	Almeria, Bilbao and Valencia.
Sweden	Gefle, Gothenburg, Halmstad, Helsingborg, Hernosand, Holmsund, Kalmar, Karlsborg, Karlskrona, Lake Vener, Lulea, Norrkoping, Raa, Stockholm, Sundsvall and Uddevalla.
Syria	Banias and Lattakia.
Trinidad	Port of Spain.
Turkey	Iskenderun, Istanbul, Izmir and Izmit.
United Kingdom	Avonmouth, Belfast, Caernarvon, Carrickfergus, Coleraine, Douglas, Falmouth, Fawley, Glasgow, Heysham, Kinlochleven, Larne, Liverpool, London, Londonderry, Newcastle-on-Tyne, Par, Penmaenmawr, Plymouth, Ramsey, Salen (Mull) and South Wales ports.
United States of America ...	Baltimore, Boston, Gulf and Pacific ports, New York, Newport News, Norfolk and Philadelphia.
Uruguay... ..	Montevideo.
Venezuela	Amuay Bay, Caripito, Las Piedras and Punta Cardon.
West Africa	Bathurst, Dakar, Freetown, Lagos, Sapele, Monrovia, Pepel and Takoradi.
Yugoslavia	Dubrovnik, Rijeka, Sibenik and Split.

SECTION IV : Inland Barge Traffic.

Numbers and tonnage using the district, and places served by the traffic.

There is a considerable amount of barge traffic between the docks and waterside premises in and about Manchester and to Runcorn. Outside districts served include Liverpool, Birkenhead, Lancashire and Yorkshire towns on the Leeds & Liverpool Canal, towns in Cheshire, Shropshire, Staffordshire, Nottingham, Derby and Leicester on the Weaver Navigation, Trent & Mersey, Shropshire Union, Birmingham and associated canals.

The following information has been supplied by the Manchester Ship Canal Company :—

The amount of traffic passing between the Bridgewater Canal and Manchester Docks during 1953 totalled 11,554 tons. This traffic was carried in boats owned by the Bridgewater Department of the Manchester Ship Canal Company and in bye-traders' boats. Points of origin and destination included Preston Brook, Birmingham, Leigh, and towns in the Potteries, in addition to journeys to factories and works within and near Manchester.

Inspection of Canal Boats.

No Inspector devotes his whole time to the duties of canal boat inspection. For the purposes of administration, the Port is divided into two sections, viz. from Manchester to Latchford, with headquarters at Manchester, and from Latchford to Eastham, including Widnes, with headquarters at Runcorn. Each Inspector is directly and solely responsible to the Medical Officer of Health for the proper supervision of his work under the Canal Boats Regulations.

During the year there has been an increase of 83 inspections compared with those of the previous year. On the Manchester—Latchford sections of the Canal 179 inspections were made and 62 inspections on the Latchford—Eastham section.

Owners were promptly informed of the boats found to contravene the provisions of the Public Health Act, 1936, and the Canal Boats Regulations.

Details of Inspections.

Number of Inspections	Average Number of Inspections per boat	Individual Number of Boats :			Number of Boats on which Contraventions were corrected
		Inspected	with Contraventions	Percentage With Contraventions	
241	1.68	143	72	50.3%	41

Year		Number of Inspections	Number of Complaints Notes served			Percentage defective
1953	...	241	...	63	...	26.14
1952	...	158	...	48	...	30.38

The following is a summary of the defective conditions and contraventions of the Canal Boats Regulations found during the year and for which Complaint Notes were forwarded to the Owners. No legal proceedings have been necessary to obtain the remedy of defects.

Certificates.

Registration certificate not produced	13
Registration certificate torn and dilapidated	4
Registration certificate required amending	1

Markings.

Registration number not marked on boat	1
Marking indistinct or incorrect	3

Cleanliness and Repairs.

Cupboards, cabins, etc., required cleansing	5
Leaking deckheads and overhead decks	13
Cabin unfit for human habitation by reason of dampness and disrepair	4
Stove, stove pipes, etc., defective	10
Cabin top not insulated	1
Cabins, etc., required painting	32
Portlights, skylights, decklights, broken and leaking	6
Insulation defective	3
Defective bulkhead causing fumes to enter cabin ...	1
Sliding hatch to scuttle defective	2
Mice infestation	1
Offensive smell from damaged grain penetrating into cabins	2
Bunk broken	1
Oil drip tray perforated	1
Well board in cabin missing	1
Cabin ladder insecure	1
Washbasin broken	1
After cabin infested with bugs	1
Cabin table defective	3

Ventilation and Lighting.

Ventilator defective	1
-----------------------------	---

Provision of Water Vessel.

Water vessel unsuitable and insufficient	2
Water vessel required cleaning	1
Water vessel cover defective	1

Overcrowding.

After cabin overcrowded	1
(one in excess of permitted number)	

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No cases of infectious sickness were reported and no boats have been detained for cleansing or disinfection.

The Authority is not a Registration Authority.

SECTION V : Water Supply.

(1) *Source of supply for (a) the district and (b) shipping.*

(a) Water is supplied by the respective water undertakings abutting the Ship Canal.

(b) Fresh water is obtainable direct from hydrants on the quays, wharves, etc., between Mode Wheel and Barton, Partington Coal Basin, Latchford Locks, Warrington Lay-Bye, Runcorn Docks, Weston Point Docks, Stanlow Lay-Bye, Stanlow Oil Dock, Ellesmere Port, Eastham Locks, and the berths in Queen Elizabeth II Dock, Eastham.

(2) *Reports of tests for contamination.*

The frequent verbal complaints regarding the water supply to vessels in port have been disturbing. Your Inspectors have taken numerous samples to check sedimentation from the supply to vessels on which complaints have been made, and at the close of the year the position was still under investigation. Sedimentation to a minor degree was observed but there was no unusual taste. Further examinations are to be carried out in an endeavour to find the source of the trouble.

m.v. "Att S." Water samples taken for chemical analysis and bacteriological examination following the report of two cases of suspected mild dysentery during voyage and a further two cases on arrival. Dysentery not confirmed. Water taken on at Belfast. (a) Analyst—"from chemical point of view water is suitable for drinking purposes"; (b) Bacteriologist—"no shigellae isolated."

s.s. "Baltkon." Several members of crew had slight fever, headaches and intermittent pains after leaving Lisbon for the United Kingdom. The Master suspected the sickness was due to drinking water. Two samples of water taken for bacteriological examination—one from water taken on at Grimsby and the other from water obtained at Grimsby, Barry and Lisbon. No coliform bacilli per 100 ml. reported. Four faeces specimens were also forwarded for examination—no organisms of the typhoid, salmonella or dysentery groups grown.

(3) *Precautions taken against contamination of hydrants and hosepipes.*

Hydrants and hosepipes were found to be adequately protected against contamination.

(4) *Number and sanitary conditions of water boats, and powers of control by the Authority.*

The Manchester Ship Canal Company have water craft for supplying fresh water as required. A dumb barge fitted with tanks was employed for the first half of the year for supplying water to dredgers working in the Eastham Channel. The barge was then taken off this service and returned to normal barge duty after the tanks and equipment had been removed and stored ashore. Her place was taken by one of the Canal Company's tugs ("M.S.C. Manchester") fitted with an after peak tank carrying 11 tons maintained in a satisfactory condition.

The Authority has no special powers of control. Any defects found by the Inspectors are promptly brought to the notice of the Owners and no difficulty has been experienced. Owners are commendably co-operative.

SECTION VI :**Public Health (Ships) Regulations, 1952.****(1) *List of Infected Areas.***

Arrangements for the preparation and amendment of the list, the form of the list, the persons to whom it is supplied, and the procedure for supplying it to those persons.

New lists of such areas were compiled by the Medical Officer of Health, Liverpool Port Health Authority, on 5th May, 1953, and 6th October, 1953. Copies were promptly forwarded by post to H.M. Customs and Excise, Eastham, and also handed to the Waterguard Department and to the Inspectors of this Authority.

(2) *Radio Messages.* No Change.**(3) *Notifications otherwise than by Radio.* No Change.****(4) *Mooring Stations.* No Change.****(5) *Arrangements for :***

(a) Hospital accommodation for infectious diseases ;

(b) Surveillance and follow up of contacts ;

(c) Cleansing and disinfection of ships, persons, clothing and other articles.

No Change.

Maritime Declarations of Health are supplied to masters of vessels by Officers of H.M. Customs and Excise and Inspectors of this Authority. During the year 613 Declarations were received.

SECTION VII : Smallpox.

(1) *Names of Isolation Hospitals to which cases are sent from the district.*

- (a) Ainsworth Smallpox Isolation Hospital, Bury.
- (b) Elswick Leys Smallpox Hospital, Elswick Leys, Blackpool.
- (c) New Ferry Smallpox Hospital, Beaconsfield Road, Rock Ferry.

(2) *Arrangements for transport of such cases to hospital by ambulance, giving the name of the Authority responsible for the ambulance and the vaccinal state of the ambulance crews.*

The ambulance services of the Lancashire County Council or the Cheshire County Council, or of the County Boroughs of Liverpool, Manchester and Warrington, would be available. The vaccinal state of the ambulance personnel is controlled by the Ambulance Authorities, who, generally speaking, require annual re-vaccination of all persons who may be required to handle smallpox patients, suspects or contacts.

(3) *Names of smallpox consultants available.*

- Dr. D. C. Little, Monsall Hospital, Manchester 10.
- Dr. C. Metcalfe Brown, Town Hall, Manchester 2.
- Dr. W. McClure, 19, Didsbury Court, Manchester 20.
(Resigned 27/10/53).
- Dr. A. B. Semple, Belmont Grove, Liverpool 6.
- Dr. E. R. Peirce, Port Health Authority, Liverpool 3.
- Dr. J. Yule, Town Hall, Stockport.

(4) *Facilities for laboratory diagnosis of smallpox.*

Public Health Laboratory, University of Liverpool.

SECTION VIII : Venereal Disease.

Leaflets giving the undermentioned information as to the location, days and hours of available facilities are distributed by the Inspectors when vessels are visited :—

<i>Town</i>	<i>Institution</i>	<i>Days and Hours of Attendance (Males)</i>
MANCHESTER and SALFORD.	Manchester Royal Infirmary, Nelson Street, Manchester 13.	Monday—5-30 p.m. to 7 p.m. Wednesday—5-30 p.m. to 7 p.m. Thursday—5-30 p.m. to 7 p.m.
	St. Luke's Hospital, Duke Street, Liverpool Road, Manchester 3.	Monday—10 a.m. to 12 noon. Tuesday—10 a.m. to 12 noon ; 5 p.m. to 7 p.m. Wednesday—10 a.m. to 12 noon. Thursday—10 a.m. to 12 noon ; 5 p.m. to 7 p.m. Friday—10 a.m. to 12 noon ; 5 p.m. to 7 p.m. Saturday—10 a.m. to 12 noon.
	Manchester & Salford Hospital for Skin Diseases, Quay St., Deansgate, Manchester 3.	Monday to Saturday — 9 a.m. to 10 a.m.
	Ancoats Hospital, Mill Street, Ancoats, Manchester 4.	Monday and Wednesday—5 p.m to 7 p.m.
	Salford Clinic, 155, Regent Road, Salford 5.	Monday to Saturday—9 a.m. to 12-30 p.m. Monday, Tuesday and Thursday— 5 p.m. to 7 p.m. Friday—2 p.m. to 4-30 p.m. Sunday—10 a.m. to 1 p.m.
LIVERPOOL.	Liverpool Seamen's Dispensary, Paradise Street, Liverpool 1.	Daily—9-30 a.m. to 1 p.m.; 3 p.m to 6-30 p.m. Saturday—9-30 a.m. to 12 noon.
	Liverpool Royal Infirmary, Pembroke Place, Liverpool 3.	Monday—10 a.m. to 1 p.m.; 5 p.m. to 6-30 p.m. Wednesday—10 a.m. to 1 p.m.; 5 p.m. to 6-30 p.m. Friday—10 a.m. to 1 p.m.; 5 p.m. to 8 p.m.
	Bootle General Hospital, Derby Road, Liverpool 20.	Monday—12 noon to 2 p.m. Tuesday—6-30 p.m. to 8 p.m. Thursday—12 noon to 2 p.m. Friday—6-30 p.m. to 8 p.m.
WARRINGTON.	Warrington General Hospital, Lovely Lane, Warrington.	Monday—11 a.m. to 1 p.m. Thursday—5-30 p.m. to 7 p.m.
BIRKENHEAD.	St. James's Hospital, Birkenhead.	Monday—2 p.m. to 6-30 p.m. Wednesday—10 a.m. to 12 noon. 2 p.m. to 6-30 p.m. Friday—2 p.m. to 6-30 p.m.
CHESTER.	Chester Royal Infirmary, Chester .	Wednesday—5 p.m. to 7 p.m. Saturday—12 noon to 2 p.m.

It will be noted that details are given regarding centres and hospitals in Manchester, Salford, Warrington, Chester, Liverpool and Birkenhead, these being places riparian to or in fairly close proximity to the Ship Canal.

The Manchester Ship Canal Company allow the display of venereal disease posters issued by the Central Office of Information in the conveniences on the dock premises.

The following information as to the treatment of seamen in the Port suffering from venereal disease is supplied by the Director of the Special Clinic, Salford Hospital Management Committee, which is the nearest Treatment Centre to the Docks :—

<i>Patients suffering from:</i>	British Seamen	Foreign Seamen
Syphilis	6	1
Gonorrhœa	22	22
Other Conditions	115	31
	<hr/> 143	<hr/> 54
Arsenobenzene Injections ...	31	70
Bismuth Injections	38	—
Penicillin Injections	104	19
Attendances	651	112

SECTION IX : Cases of Notifiable and other Infectious Diseases on Ships.

TABLE D.

Category	Disease	Number of Cases during the year :		Number of ships concerned
		Passengers	Crew	
Cases landed from ships from foreign ports.....	Malaria	—	1	1
Cases which have occurred on ships from foreign ports, but have been disposed of before arrival	Pneumonia	—	3	3
	Tuberculosis	—	4	4
	Malaria	—	7	4
	German Measles	—	1	1
Cases landed from other ships	Tuberculosis	—	1	1

No cases or suspected cases of smallpox, cholera, plague, yellow fever, typhus or relapsing fever occurred during the year.

SECTION X : Observations on the occurrence of Malaria in Ships.

The occurrence of malaria has been so reduced in recent years that the variation in the number of cases can give little indication of the prevalence of malaria amongst seamen. It is apparent that prophylactic treatment is having the desired effect and the disease is no longer the inevitable sequel to a visit to malaria-infected ports.

SECTION XI : Measures taken against Ships infected with or suspected for Plague.

No ships infected with or suspected for plague arrived during the year. In the event of such an occurrence, the measures outlined in Part I of the Fourth Schedule to the Public Health (Ships) Regulations, 1952, would be vigorously pursued.

SECTION XII : Measures against Rodents in Ships from Foreign Ports.

(1) Procedure for inspection of ships for rats.

Vessels from foreign ports are visited by the Inspectors as soon as possible after arrival, priority being given to vessels from infected ports. All such vessels are searched by the Rodent Operative for dead rats or evidence of rats dying on the voyage. Daily visits are made whilst the vessels are in port, traps being set and baits laid wherever necessary. Enquiries are also made by the Inspectors as to whether any dead bodies have been disposed of prior to arrival. Tankers arriving at Eastham, Stanlow and Ince from foreign ports are visited by the Inspector and, whenever possible, a detailed inspection for rats is made with the assistance of the motor launch engineer. The short stay in port of these tankers renders it difficult for any specialized treatment to be given. Details of action necessary to deal with any rodent infestation are given to the Master, and if the vessel should be proceeding coastwise for overhaul or to complete discharge of cargo the Medical Officer of Health of the next port is notified of the evidence found.

(2) Arrangements for the bacteriological or pathological examination of rodents, with special reference to rodent plague, including the number of rodents sent for examination during the year.

Specimens of rats caught are forwarded to the Public Health Laboratory, Monsall Hospital, Manchester, or the City Laboratories, Liverpool, for bacteriological examination. 21 rats from vessels from foreign ports and 3 from coastwise barges were examined. In addition, 28 of the rats caught on dock premises by the Rodent Operative of the Manchester Ship Canal Company were also submitted for examination. In no instance was any evidence of plague infection found.

(3) *Arrangements in the district for deratting ships, the methods used, and, if done by a commercial contractor, the name of the contractor.*

Deratting of vessels prior to the issue of a Deratting Certificate is usually effected by fumigation with Hydrogen Cyanide carried out by contractors whose staff are qualified and trained as required by Section 5 of the Hydrogen Cyanide (Fumigation of Ships) Regulations, 1951.

Nine vessels from foreign ports and one from coastwise ports were fumigated by hydrogen cyanide during the year. The coastwise vessel was fumigated prior to the issue of a Rodent Control Certificate. The undermentioned contractors carried out these fumigations under the supervision of the Authority's Inspectors :—

Croftbank Chemical Co. Ltd., Oldham. (*Four*).

Deodor-X Hygiene Services Ltd., Birkenhead. (*Two*).

Hivey Fumigation Co. Ltd., Liverpool. (*Three*).

Fumigation Services Ltd., Ossett. (*One*).

Following the Authority's decision towards the end of the year to allow approved contractors to use Sodium Fluoroacetate ('1080') for the deratting of vessels, a memorandum, similar to the one compiled by the Port Medical Officer, London, was circulated, and six deratting contractors forwarded written undertakings to comply with the conditions laid down in the memorandum. The names of the contractors were as follows :—

Associated Fumigators (Northern) Ltd., Liverpool.

Croftbank Chemical Co. Ltd., Oldham.

Deodor-X Hygiene Services Ltd., Birkenhead.

Hivey Fumigation Co. Ltd., Liverpool.

Irlam Insecticides, Liverpool.

London Fumigation Co. Ltd., Manchester.

The attention of the contractors was drawn to the fact that any neglect to comply with the instructions of an Officer of the Port Health Authority could lead to the refusal by the Port Medical Officer to issue a Deratting Certificate or a Rodent Control Certificate. The importance of operators wearing rubber gloves, and the strict prohibition of smoking, eating and drinking during the operation were also stressed.

The successful use of '1080' at the Port of London and the demonstrations attended by two of the Inspectors give complete satisfaction that such a deratting method has much to commend it. Ship-owners will be specially keen to benefit from this method of treatment, as the necessity for the crew to go ashore is obviated and the cost of treatment is considerably less than with HCN.

(4) *Progress in the rat-proofing of ships.*

Rat-proofing on new vessels was generally found to be satisfactory, whilst on older vessels, on appropriate occasions, the Inspectors gave advice as to any necessary work that required undertaking.

TABLE E.

Rodents destroyed during the year in ships from foreign ports.

Category.	Number.
Black rats	244*
Brown rats	—
Mice	1
Species not known	—
Sent for examination	21 rats
Infected with plague	None

*Includes 138 rats destroyed by fumigation.

Two of the above rats were destroyed by the motor launch engineer on vessels at Stanlow and Ellesmere Port.

Nine fumigations carried out during the year, prior to the issue of a Deratting Certificate, resulted in 138 rats being destroyed, as compared with 212 rats and 166 mice destroyed as a result of 17 fumigations in 1952. 42 of these rats were recovered on 2 vessels from infected ports. A further fumigation for the issue of a Rodent Control Certificate was carried out on a coastwise vessel, resulting in 9 mice being destroyed. A complete search following fumigation could not be made on two vessels owing to the presence of dunnage, whilst in another instance the vessel sailed before a visit could be made.

RODENT CONTROL.

	Foreign.	Coastwise.
Visits by Inspectors	1,477	467
Re-visits by Inspectors	368	56
Visits by Rodent Operative	623	84
Re-visits by Rodent Operative	541	20
Visits by Motor Launch Engineer	225	40
Re-visits by Motor Launch Engineer ...	9	1
Rats killed by trapping and poisoning...	106	—
Rats killed by fumigation	138	—
Mice killed by poisoning	1	—
Mice killed by fumigation	—	9
Ratguards not fitted	615	158

A further 12 rats were destroyed on two barges.

1,164 visits and re-visits were made by the Rodent Operative to 623 vessels from foreign ports and 104 visits and re-visits to 84 vessels from coastwise ports. 115 traps were laid on 20 vessels trading with foreign ports and further traps and/or baits were laid by the engineer on eight vessels.

Rodent control is also important in connection with the requirements of the Prevention of Damage by Pests (Application to Shipping) Order, 1951 (see page 24).

TABLE F.

Deratting Certificates and Deratting Exemption Certificates issued during the year for ships from foreign ports.

Number of Deratting Certificates issued :					Number of Deratting Exemption Certificates issued	Total Certificates issued
HCN	After fumigation with Other fumigant (state method)	After trapping	After poisoning*	Total		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
9	—	2	—	11	224	235

* State poisons used and number of Certificates issued after each poison.

SECTION XIII : Inspection of Ships for Nuisances.

TABLE G.

Inspections and Notices.

Category of Nuisance and Number of Inspections:	Number of Inspections:		Notices served:		Result of serving Notices
	British	Foreign	Statutory Notices	Other Notices	
				Written Verbal	
Verminous conditions	297	179	—		
Accommodation and fittings in dirty and defective condition	227	58	—		
Storerooms and galleys in dirty and defective condition	63	11	—	British 139	48 Notices complied with and 48 partly complied with whilst vessels in port.
Heating, lighting and ventilation defective	189	49	—		
Sanitary accommodation dirty and defective	128	92	—	Foreign 38	24 Notices complied with and 9 partly complied with whilst vessels in port.
Washing facilities dirty and defective	53	12	—		
Water system defective	21	—	—		
Offensive refuse	12	3	—		
Overcrowding	1	—	—		
Excess emission of smoke	1	2	—		
Total	992	406	—	177	548

DEFECTIVE VESSELS.

The number of defects reported showed an increase over 1952. Many of these defects could have been obviated by ordinary care and cleanliness, and it is disappointing to find such situations arising on vessels of recent construction.

In Table G it will be seen that out of 725 written and verbal notices given only 72 were wholly complied with and 57 partly complied with before the vessels left the Port. These figures will appear poor reward for the continued efforts of the Inspectors to have defects remedied. Many of the ships on which notices were served were only in port a short time and/or were proceeding to other ports to complete cargo discharge or undergo overhaul. Letters were forwarded to other Port Health Authorities drawing their attention to defects on vessels proceeding to their ports.

VERMINOUS VESSELS.

An increasing number of vessels were found during the year to have the accommodation, etc. in a verminous condition, but in very few instances were the infestations on a major scale. Supplies of insecticide continue to be kept on board many vessels for use by the crew during the voyage, but the human element has rather failed to make the best use of the insecticide provided. The increasing use of lacquer gives rise to the hope that the number of vessels on which there are verminous conditions will gradually decrease. Vessels arriving in the Port which have had an insecticidal lacquer treatment have shown an outstanding improvement and the comments of the Inspectors emphasize the importance of the advent of this new method of treatment,

Many expressions of opinion have been given as to the recent lack of success of DDT and Gammexane against vermin. It has been suggested by some experienced persons that cockroaches, etc., have now become immune to sub-lethal doses and have developed a resistant strain. Much advertising and excessive claims have been made as to the destructive powers of these insecticides but, unfortunately, the concentrations of DDT and Gammexane have often been far below those necessary to effect a satisfactory result, hence repeated minor infestations have been found on vessels where complete eradication should have been achieved.

VESSELS INSPECTED BY THE SANITARY INSPECTORS.

		1953	1952	1951
Vessels entering the Port	Foreign ...	1,764	1,520	1,893
	Coastwise	2,791	2,441	1,768
	Total	4,555	3,961	3,661
Number inspected	Foreign and Coastwise	2,046	1,682	1,791
Percentage inspected		44.91%	42.46%	48.92%
Number reported defective		793	594	678
Number on which defects remedied		457	264	361
Number of vessels on which were remedied defects reported prior to year of inspection	British.....	162	122	131
	Foreign ...	57	56	66

The work of the Sanitary Inspectors at different parts of the Port is indicated by the following statement of the number of vessels inspected and the number found with defects at various places along the Canal:—

Section A (Manchester—Latchford) :	<i>Inspected</i>	<i>Defective</i>
Manchester, Salford and Stretford... ..	1105	415
Mode Wheel Oil Wharf	20	10
Weaste... ..	34	18
Guinness' Wharf	7	2
Irwell Park Wharf and Eccles... ..	60	30
Barton	38	22
Irlam	30	14
Partington	75	26
Latchford Locks	1	—
	<hr/> 1370	<hr/> 537
	<hr/>	<hr/>

Section B (Latchford—Eastham) :	<i>Inspected</i>	<i>Defective</i>
Warrington	3	2
Acton Grange	9	3
Widnes	11	7
Runcorn	44	10
Weston Point	55	17
Ince	24	11
Stanlow Oil Dock and Lay-Bye	325	153
Ellesmere Port	129	30
Bowaters' Wharf (Ellesmere Port)	67	18
Eastham Locks and Lay-Bye	4	3
Queen Elizabeth II Dock, Eastham	5	2
	<hr/> 676	<hr/> 256
	<hr/>	<hr/>
Gross Total	2046	793
	<hr/>	<hr/>

Nationalities of the vessels inspected and the number found with defects :—

	<i>Inspected</i>	<i>Defective</i>
British	1037	519
American	47	1
Argentinian	1	—
Belgian	7	5
Costa Rican... ..	5	4
Danish	60	16
Dutch	276	57
Eireann... ..	8	6
Finnish	38	14
French	8	3
German	102	20
Greek	12	7
Honduran	5	2
Moroccan	2	1
Italian	25	13
Liberian	4	3
Norwegian	205	66
Panamanian	42	22
Portuguese	3	2
Roumanian	1	1
Spanish	5	5
Swedish	147	23
Swiss	5	2
Yugo-Slavian	1	1
	<hr/> 2046	<hr/> 793

The number of inspections made of British and Foreign vessels and the number found with defects were :—

	<i>Inspected</i>	<i>Defective</i>
British Steamships and Motor Vessels ...	1027	511
British Flats and Barges	10	8
Foreign Steamships and Motor Vessels...	1009	274
	<hr/>	<hr/>
Totals	2046	793
	<hr/>	<hr/>
Re-Visits	568	
	<hr/>	
Gross Total—Visits and Re-Visits ...	2614	
	<hr/>	

In the Manchester—Latchford Section there was an increase of 333 inspections over the previous year, and in the Latchford—Eastham Section an increase of 31 vessels was recorded.

Number of personnel of various Nationalities on vessels inspected during the year :—

British :

Europeans	...	...	...	...	...	...	...	...	27,495
Lascars, Arabs, etc.	...	...	...	...	...	...	...	...	4,309
Chinese	...	...	...	...	...	...	...	...	944
									<hr/> 32,748
American	...	...	...	...	...	...	...	...	2,136
Argentinian	...	...	...	...	...	...	...	...	153
Belgian	...	...	...	...	...	...	...	...	284
Costa Rican	...	...	...	...	...	...	...	...	121
Danish	...	...	...	...	...	...	...	...	1,560
Dutch	...	...	...	...	...	...	...	...	4,493
Eireann...	...	...	...	...	...	...	...	...	71
Finnish	...	...	...	...	...	...	...	...	972
French	...	...	...	...	...	...	...	...	175
German	...	...	...	...	...	...	...	...	1,710
Greek	...	...	...	...	...	...	...	...	397
Honduran	...	...	...	...	...	...	...	...	99
Italian	...	...	...	...	...	...	...	...	805
Liberian	...	...	...	...	...	...	...	...	122
Moroccan	...	...	...	...	...	...	...	...	23
Norwegian	...	...	...	...	...	...	...	...	6,342
Panamanian	...	...	...	...	...	...	...	...	1,314
Portuguese	...	...	...	...	...	...	...	...	43
Roumanian	...	...	...	...	...	...	...	...	39
Spanish	...	...	...	...	...	...	...	...	148
Swedish	...	...	...	...	...	...	...	...	3,692
Swiss	...	...	...	...	...	...	...	...	107
Yugo-Slavian	...	...	...	...	...	...	...	...	39
									<hr/> 57,593

SECTION XIV : Public Health (Shell-fish) Regulations, 1934 and 1948.

NO CHANGE.

SECTION XV : Medical Inspection of Aliens (applicable only to ports approved for the landing of aliens)

NO CHANGE.

SECTION XVI : Miscellaneous.

Arrangements for the burial on shore of persons who have died on board ship from infectious diseases

NO CHANGE.

PREVENTION OF DAMAGE BY PESTS (APPLICATION TO SHIPPING) ORDER, 1951.

27 Rodent Control Certificates were issued during the year. In one instance traps were laid following instructions from the Inspector prior to the issue of Certificate.

Ten visits were made by the Inspectors and three visits by the Rodent Operative to three floating grain elevators. All of the elevators showed evidence of rats and were treated with "Warfarin" and no further complaints received.

15 visits by Inspectors to barges resulted in one rat being destroyed.

Other Rodent Control Measures.

The number of rats caught or destroyed by the rodent operative employed by the Manchester Ship Canal Company showed a decrease compared with 1952 ; 1,905 as against 2,888 in the previous year. Any complaints received by the Authority regarding the presence of rats on the quays, wharves, sheds, etc., were promptly dealt with by the Company's rodent operative.

The Chief Sanitary Inspector of the Ellesmere Port U.D.C. reports that on the Company's property at Ellesmere Port a total of 26 rats were destroyed by using zinc phosphide, arsenic, mafantu and red squill for baits. 116 campaigns were carried out during the year.

The Chief Sanitary Inspector of the Runcorn U.D.C. reports that a further 64 rats and 95 mice were destroyed on the Company's premises at Runcorn.

The co-operation and assistance of the Chief Sanitary Inspectors of Ellesmere Port and Runcorn in effectively reducing the rodent population on property abutting the Canal within their jurisdictions has again been most helpful.

DANGEROUS DRUGS (No. 3) REGULATION, 1923.

No Certificates were issued under this Regulation during the year.

INSPECTION OF FOOD STORAGE WAREHOUSES

Periodic visits were made to warehouses at Runcorn and Weston Point to inspect imported foodstuffs in storage. One consignment of Canadian grain, which had been in storage since September, 1951, was found to be partly contaminated by heavy mice infestation. Distribution of this consignment from the warehouse commenced at the beginning of the year. Approximately 25 tons were detained and later sorted under the supervision of an Inspector working in conjunction with the Liverpool Port Area Grain Committee. After sorting, 6 tons 6 cwts. were seized as unfit for human consumption and then released for animal feeding stuffs on receipt of a guarantee. Apart from the above, satisfactory storage was maintained.

OBSERVATIONS OF THE SANITARY INSPECTORS.

A considerable increase in the number of vessels inspected on the Manchester—Latchford Section of the Canal was effected during the year.

The use of insecticidal lacquers for controlling insect life on board vessels was noted with keen interest. The method employed is to brush or spray a Urea Formaldehyde resin, into which has been incorporated an insecticide such as DDT, BHC, Aldrin or Dieldrin on to infested areas. Dieldrin is generally considered to be most efficient. No irritant can be felt by insects coming into contact with Dieldrin, as is sometimes the case when DDT is used. After application and drying, the insecticide contained in the lacquer erupts on to the surface in minute particles, thus rendering the treated area toxic to all insects. This eruption or “blooming” of the insecticide is said to continue for periods of two years and over and is actually stimulated by cockroaches or other insects walking over the lacquered surface. If the surface insecticide is removed by washing or scrubbing, more particles of the insecticide take their place from the reservoir below. There is said to be no gradual falling off in the toxicity of the insecticide, maximum efficiency being maintained until the reservoir has been completely exhausted. The complete area of the bulkheads, deckheads, etc., may be treated, or more often strips roughly 4 in. wide are brushed or sprayed on to focal points, such as corners, joints, crevices, pipes, and other insect harbourages. The latter method, which is more economical, has given very satisfactory results. When the lacquer is applied by pressure spray, protective clothing and breathing apparatus must be worn. Interviews with representatives of two companies who supply insecticidal lacquers led to the Authority obtaining a small supply for experimental purposes. Some of this lacquer was used in a messroom and pantry on a vessel using the strip or focal point method. When first inspected this vessel was found to be quite heavily infested with cockroaches, but as the heating systems aboard the vessel were turned off before the rooms were treated, many cockroaches had already hidden themselves away in the cracks and crevices seeking warmth. On each re-visit during the 22 days following the treatment a small number of dead cockroaches were observed in the treated rooms. No further bodies were seen after this time, even when heating was re-introduced.

Ships arriving in the Port which had previously been treated with insecticidal lacquers at other ports have been found on inspection to be insect free ; amongst these were the following :—

(1) A Cargo Vessel of 7,051 gross tons, *European Officers and Indian Crew.*

The Chief Officer stated that the vessel had been troubled with a cockroach infestation in the native quarters for some considerable time prior to being sprayed at London in August, 1953. The vessel then voyaged to South Africa and returned to the United Kingdom, arriving at Manchester in November, 1953. No cockroaches had been seen during the voyage and no insects of any kind were found when the vessel was thoroughly inspected at Manchester. Both the Chief Officer and the Chief Steward expressed their complete satisfaction with the efficiency of insecticidal lacquers and had been requested by the Owners to report on same.

(2) *A Coastal Trade Tanker of 959 gross tons, British Officers and Crew.*

Cockroach infestation of galley, pantry and all accommodation was reported on the 10th September, 1953, at this Port. The vessel proceeded to London, where spraying with insecticidal lacquer was carried out. When the vessel returned to Manchester in December, 1953, further inspection revealed no evidence of insect life. Members of the crew stated that, except for a few small cockroaches which were seen during the first two weeks following treatment, the cockroach infestation had completely disappeared.

On both vessels the focal point or strip method had been used. This method of applying insecticides and its long residual effectiveness appears to be a great step forward in the battle against insects.

Some trouble from fleas was again reported in the summer months by the dockers unloading bales of rags from Dublin. Infested bales were also encountered on vessels arriving from Belfast. The names of suppliers were obtained from the Shipping Companies concerned, and the Medical Officers of Health at Dublin and Belfast were requested to investigate the sources of infestation. In the late autumn the position improved and at the year end no reports were received of flea infestation. Whether the disappearance of the fleas was due to disinfestation of the bales before loading, or to cooler weather it is not possible to say.

The Merchant Shipping (Crew Accommodation) Regulations, 1953, coming into operation on the 1st January, 1954, will require a higher standard of accommodation in new ships and in ships undergoing major repairs. It is regrettable that no legislation is available to bring the accommodation of all ships up to a reasonable standard. One feature of the new Regulations is that on all vessels, old and new, the Master is responsible for the inspection of the crew accommodation at intervals not exceeding seven days, and provision is made for the lodging of complaints by members of the crew. A record of the inspection by the Master or Officer and one or more members of the crew must be made in the ship's official log book. An improvement in the standard of cleanliness and a reduction in the number of minor defects is anticipated to be the result of these regular inspections.

It was observed that there was no improvement in the condition of seamen's bedding, some mattresses being used successively by many different men with no intermediate cleaning.

Very little evidence of the presence of rats has been found, and it would appear that there is very little rat life on any vessels these days. The old idea of every ship carrying some rats is now far from fact and it is pleasing to note that only seven fumigations during the year were required on the evidence of the presence of rats.

Only two barges were discovered to be infested with rats during the year. The owners were informed and requested to fumigate at the earliest opportunity. It is often thought that barges on inland waterways are a major factor in the dissemination of rats throughout the country, but constant observation would not support this view.

Slight rodent infestation on the three floating grain elevators was found. The owners were requested to treat the elevators, and "Warfarin" was recommended. No evidence of rats has since been found or reported.

The decision of the Authority to allow vessels to be treated with Sodium Fluoroacetate ('1080') prior to the issue of a Deratting Certificate can be considered a most important step towards the control of rats on shipboard.

It was possible for two Inspectors to attend '1080' demonstrations at London and Liverpool. The demonstration at London in October was part of a one-day course arranged by the Association of Sea and Air Port Health Authorities. A most informative lecture was given by Dr. M. T. Morgan, Port Medical Officer, London, followed by a demonstration on the m.v. "Chinkoa". It would appear from facts compiled by Dr. Morgan after considerable experiments in the Port of London that '1080' compound is a very useful rodenticide. Deratting Certificates will be issued to ships in the Port of Manchester following treatment with '1080' compound by approved servicing companies complying with the requirements of the Port Medical Officer. Considerable saving of cost and time to the ship-owner will ensue, and it is anticipated that satisfactory results will be obtained.

No vessels have been fumigated with sulphur dioxide this year, but those arriving from other ports which have been so fumigated have shown some evidence of rat life remaining. A 100% kill by burning sulphur seems to be almost an impossibility in practice. It is hoped that with the introduction of '1080' compound sulphur dioxide will completely disappear from ship fumigation work.

In November, a new method of distributing HCN for fumigation of vessels was demonstrated. This involved the use of absorbent wood pulp discoids saturated with HCN which, on contact with the atmosphere, released their gas. The discoids were carried in sealed metal cylinders, taken out when required, and dispersed throughout the spaces to be treated. After the operation the discoids were collected and re-packed into the cylinders ready for re-saturation and re-use. In the past HCN has been distributed either by liquid spray, with which there was a danger of HCN deeply saturating fabrics and furnishings in accommodation, or by the use of small HCN-saturated granular cubes which, of course, cannot be used again. Re-usable discoids appear to overcome both these disadvantages and to be satisfactory for the deratting of vessels.

Canal Boats.

A survey of drinking water tanks on board certain canal boats was carried out during the year. Of the sixteen individual boats inspected it was revealed that the tanks on three of the vessels had no access for internal inspection or cleansing. A further ten canal boats had tanks into which access holes had been made in such a manner that efficient inspection and cleansing was impossible whilst the tanks remained in position. This necessitated the removal of the tanks for cleansing—a comparatively lengthy and laborious procedure. The owners were requested to fit access holes to the drinking water tanks, where necessary, and to ensure that all tanks were cleansed at regular intervals. On the remaining three canal boats, drinking water tanks were provided with suitably positioned access holes. No complaints about drinking water had been received, but it was considered necessary to have access holes fitted for inspection and cleansing.

N. M. SAMPSON.

E. J. FRANKLIN.

EXTENT OF RAT INFESTATION ON BOARD TANKERS.

Nationality	Type of Oil carried	Number of Vessels in-spected	Number of Vessels found clear of infestation	Number of Vessels found infested			Percentage of Vessels found infested	Number of Vessels showing evidence of old infestation
				Slight 1—5 Rats	Moderate 6—10 Rats	Heavy 11 Rats or over		
British	Spirit	19	16	3	—	—	15.8	3
	Kerosene ...	3	3	—	—	—	—	—
	Fuel	13	10	3	—	—	23.1	1
	Gas	6	6	—	—	—	—	—
	Lubricating...	3	2	1	—	—	33.3	—
	Crude	55	52	3	—	—	5.5	3
	Total	99	89	10	—	—	10.1	7
Foreign ...	Spirit	33	32	1	—	—	3.0	3
	Kerosene ...	7	7	—	—	—	—	—
	Fuel	48	45	3	—	—	6.2	—
	Gas	6	6	—	—	—	—	1
	Lubricating...	5	5	—	—	—	—	—
	Crude	73	66	7	—	—	9.6	10
	Total	172	161	11	—	—	6.4	14
All Vessels ... Total 1953 ...		271	250	21	—	—	7.8	21
All Vessels ... Total 1948/52		1119	964	138	12	5	13.9	*90
All Vessels ... Total 6 years (1948/1953)		1390	1214	159	12	5	12.7	*111

* Figure for 1948 not known.

The results of examinations on 271 foreign-going tankers are given in the above table.

In addition to the above, 14 other tankers carrying miscellaneous cargoes such as tar and waxy distillate were also examined, giving a total of 285 tankers for the year, an increase of 7 over 1952. With regard to the 14 other tankers, all were found clear.

The downward trend in the number of rat-infested tankers has again continued, the overall percentages being 7.7% compared to 9.2% in the previous year. Tankers showing evidence of old infestations also dropped from 30 in 1952 to 21 in 1953, with relative percentages of 11% to 7.8%.

As will be seen from the table, no tankers were found with moderate or heavy infestations, although on two vessels the Master reported past heavy infestations, in one instance 17 rats being accounted for in the two months following an overhaul.

The present low level of infested tankers is very satisfactory, and it will be interesting to observe whether it is maintained or bettered in future observations.

The assistance of Mr. R. C. Ashton in this work has been of great value and I desire to express my appreciation for his willing co-operation at all times.

MOTOR LAUNCH "HYGEIA"

The Authority's motor launch "Hygeia" employed on the Ship Canal between Latchford (Warrington) and the entrance at Eastham is now in her fifteenth year and continues to give excellent service. Apart from annual overhauls, and a major repair in 1949 following an accident, the "Hygeia" has been on constant duty since her commission in February, 1939. Since that date it has only been necessary to have the engine reconditioned once. Records show that in the last ten years a distance of 31,096 miles has been covered, an approximate running time of 4,440 hours. No information is available for mileage prior to 1944, but assuming a conservative estimate of 11,000 miles, the total mileage traversed to the end of 1953 is over 42,000.

In recent years it has been found necessary, due to increased shipping at Stanlow and Ellesmere Port and a decline in trade at Runcorn, Weston Point, Widnes and Warrington, to work the launch harder and for longer distances. In 1944 a total of 2,420 miles were traversed, compared with 3,942 in 1952 and 3,676 in 1953. With the Queen Elizabeth II Dock at Eastham coming into operation, the annual mileage will be increased by several hundreds.

The increased operational time of the "Hygeia" has resulted in less time being available for maintenance and running repairs, and Mr. R. C. Ashton, Launch Engineer, is to be commended for keeping up a high standard. The reliability, low costs and smooth running performance of the launch have been most satisfactory and reflect great credit on Mr. Ashton for interest and care in his work.

G. E. STANLEY.

FOOD INSPECTION.

Public Health (Imported Food) Regulations, 1937-48.

Public Health (Imported Milk) Regulations, 1926.

Public Health (Preservatives, etc. in Food) Regulations, 1925-48.

LIST OF FOOD IMPORTS.

	From Foreign Ports.	From Coastwise Ports.
Grain, Cereals, &c.—		
Barley	1,750 tons	
Cornflour	9,920 tons	
	132,132 bags	
Farinoca	346 bags	
Flour	467,514 bags	50 packages
Groats	220 bags	
Maize	45,989 tons	143 tons
Maize Grit	20 bags	
Potato Flour	160 bags	1,128 bags
Rice	58,491 bags	
	2,000 tons	
Rusks	358 packages	
Starch	168,019 bags	
Wheat	226,519 tons	282 tons
Wheat Germ	15,768 bags	67 bags

List of Food Imports (*continued*)

	From Foreign Ports.	From Coastwise Ports.
Fruit, &c.—		
Apples	461 boxes	7,871 packages
Dried Fruit	365,598 packages	
Fruit Preserves	294 casks	
Fruit Pulp	2,349 casks	362 casks 328 packages
Grapefruit	4,700 cases	
Olives		2 barrels
Oranges	49,789 cases	
Pears	16,480 cases	
Fish, &c.—		
Herrings (salted)	119 casks	10 barrels
Shrimps (salted)	103 barrels	
Vegetables—		
Beetroots	30 bags	
Dehydrated Onion Powder	40 cartons	
Dehydrated Vegetables...	2,142 packages	
Dried Vegetables	17,734 bags	
Fresh Cabbage	220 bags	
Gherkins	50 barrels	
Onions	18,352 packages	
Potatoes	4,988 baskets	582,161 bags
Red Cabbage	120 bags	
Sauerkraut	50 cartons	
Swedes		60 bags
Vegetables in Brine ...	2,114 casks	
Tomatoes	8,641 packages	
Dairy Produce—		
Butter	3 packages	
Cheese	16,786 packages	
Cheeses	6,383 loose	
Eggs		5,478 packages
Margarine	100 cases	
Milk Powder	400 bags	
Meat—		
Bacon	10,443 bales	
Beef (frozen)	6,444 quarters	
Beef Casings		1 barrel
Beef Crops (frozen) ...	4,127 bags	
Beef Cuts (frozen) ...	427 bags	
Beef Hinds (frozen) ...	3,488 bags	
Beef Offal (frozen) ...	18 bags	
Hog Casings	51 tierces	
Ham Rinds		1 cask
Lamb and Sheep Offal (frozen)	682 packages	
Lambs and Sheep (frozen)	49,873 carcasses	
Lamb Cuts (frozen) ...	873 bags	
Pig Offal (frozen)	36 packages	
Poultry (chilled)		130 cases
Salami Sausages	2 cartons	

List of Food Imports (*continued*)

	From Foreign Ports.	From Coastwise Ports
Edible Oils and Fats—		
Castor Oil	278 drums	
Coconut Oil	98 tons	
Cod Liver Oil	1,274 drums	
Fat	160 cartons	3 cartons
Hardened Oil	267 cases	
Oleo Oil	12,087 packages	
Rape Seed Oil	13 drums	
Sperm Oil	548 drums	
Teaseed Oil	111 packages	
Canned Goods—		
Artificial Cream	7,365 packages	160 cartons
Chicken	396 packages	
Corn	637 cartons	85 cartons
Cream	1,757 packages	5,367 cartons
Dehydrated Garlic Powder	90 cartons	
Fish	64,600 packages	250 cartons
Evaporated Milk		15,000 cartons
Fruit	496,936 packages	113,552 cartons
Full Cream Powder	640 cartons	
Ice Cream Mix.		160 cartons
Jam	327 cartons	25 cartons
Jelly Crystals		4 cartons
Marmalade	25 cartons	
Marshmallow		957 cartons
Meat	174,326 packages	18,865 packages
Mincemeat		1,294 cartons
Orange Juice	14,106 cartons	
Piping Jelly		2,890 cartons
Ravioli	30 cases	
Soup	23,347 packages	28,604 cartons
Spaghetti		96 cartons
Tomato Juice	1,820 cartons	
Tomato Puree	20 boxes	
Vegetables	101,993 packages	6,728 cartons
Bottled Goods—		
Fruit	3,169 packages	95 packages
Fruit Curd		615 packages
Jam	350 packages	
Mincemeat		187 packages
Sweets, Confectionery, &c.—		
Almonds	600 bags	15,010 packages
Bakery Cream, Sweet Fat, etc.	7,962 packages	4,770 packages
Biscuits	14,674 packages	95 boxes
Cake	600 cases	8 cartons
Cake Mixture	2,028 bags	864 bags
Caraway Seed	69 bags	
Chocolate	291 packages	341 packages
Chocolate Couverture ...	3,010 cartons	5,503 packages
Cocoa Butter	31 cartons	250 cases

List of Food Imports (*continued*)

	From Foreign Ports.	From Coastwise Ports.
Sweets, Confectionery, &c.—		
Confectionery	862 packages	1,597 packages
Confectionery Mix	793 packages	8,218 packages
Desiccated Coconut	1,700 cases	400 cases
Fondant	3,721 packages	29 boxes
Gelatine	700 packages	
Gingerbread		40 cartons
Honey	1,412 drums	
Jelly	2,908 packages	3,208 packages
Malt		30 drums
Marzipan		14,669 packages
Mincemeat		3,552 packages
Sugar	315,534 bags	
Sweets	487 packages	11,642 packages
Syrup	238 drums	
Toffee Butter	6 drums	
Wafer Paper	66 packages	
Miscellaneous—		
Acetic Acid	102 casks	
Advocat	526 packages	
Beer, Stout, etc.	9,619 packages	65,639 tons
	8 casks	95 packages
		6 casks
Bred Improver		24 boxes
Champagne	200 cases	3 cases
Cherry Brandy	2 casks	5 casks
Cocoa Beans	3,599 tons	
	58,400 bags	
Chewing Gum	1,583 cartons	
Geneva	3 casks	
Glucose (liquid)	866 drums	
Glucose (powdered)	3,512 bags	
Glycerine	154 drums	
Groundnuts	5 bags	
Herbs	17 packages	
Horseradish Root	20 bags	
Liqueurs	152 cases	
Lozenges		15 chests
Mango Chutney	50 casks	
Pan Grease	600 packages	
Pecan Nuts	3 bags	
Poppodums	5 cases	
Poppy Seed	123 bags	
Rum		75 cartons
Tartaric Acid	320 drums	
Tea	118,338 packages	74,014 chests
Wine	166 packages	
Yeast	200 cartons	34 drums

The above foodstuffs were subjected to a percentage examination.

RESULTS OF INSPECTION.

Amounts of Food Imports which have been condemned during the year :—

Articles.	Tons	Weight		
		cwts.	qrs.	lbs.
Grain, Cereals, &c.—				
Flour	6	9	0	14
Flour Sweepings	1	7	2	6
Maize	3872	18	1	26
Rice		1	3	21
Rice Sweepings		13	2	24
Rolled Oats			1	8
Semolina			1	0
Wheat	456	14	3	20
Dried Fruit—				
Raisins	1	11	3	22
Vegetables—				
Vegetables in Brine		4	0	0
Meat—				
Frozen Meat		1	2	10
Canned Goods—				
Esko Whipping (Artificial Cream)		1	0	25
Fish			1	25 $\frac{3}{4}$
Frozen Egg		1	3	0
Fruit	5	5	2	0 $\frac{3}{16}$
Fruit Juice		14	0	7
Fruit Pulp				12
Meat		7	1	18
Milk			1	9
Morfat Whipping (Artificial Cream)				2 $\frac{3}{4}$
Soup		11	3	12 $\frac{1}{4}$
Vegetables				3 $\frac{11}{16}$
Bottled Goods—				
Fruit		3	0	7 $\frac{3}{16}$
Fruit Curd		3	3	1 $\frac{3}{4}$
Jam			1	3
Sweets, Confectionery, &c.—				
Biscuits			1	22
Breakfast Cake			2	4
Cake Mixture		6	0	0
Chocolate				7
Chocolate Couverture		5	0	18 $\frac{1}{4}$
Marzipan				3
Sweet Fat				5 $\frac{1}{2}$
Miscellaneous—				
Advocat				15
Tea		4	1	20
	4348	10	2	9 $\frac{5}{16}$

FOOD VOLUNTARILY SURRENDERED.

Articles.	Weight		
	cwts.	qrs.	lbs.
Apples			10
Barley	4	3	16
Butter			11
Dried Beans	1	0	0
Dried Fruit		2	25
Fish	2	3	22
Herrings (salted)		1	2
Hops			4
Jam		2	22
Marmalade		1	8
Meat			22
Milk	3	2	11 $\frac{1}{2}$
Mustard			1
Oatmeal	1	0	0
Pickles		2	19
Pork (salted)	1	0	13
Poultry		1	12
Prunes			3
Rice		1	4
Rolled Oats		1	0
Semolina		1	6
Vegetables			22
	19	0	9 $\frac{1}{2}$

Over 99% (4,343 tons) of the food condemned or surrendered was utilised for animal food or commercial purposes.

LABORATORY EXAMINATIONS.

Number of samples of food examined by:—

(a) Bacteriologist	22
(b) Analyst	31

The following samples were submitted for bacteriological examination to the Public Health Laboratory, Monsall Hospital, Manchester:—

Nature of Sample	Object of Examination	Result
Dutch Canned Pork Sausages...	Bacteriological Examination	Both aerobic and anaerobic cultures remained sterile.
Dutch Bottled Cocktail Frankfurter Sausages.	ditto	ditto
Dutch Canned Boneless Loin of Beef in Gravy.	ditto	ditto
French Canned Luncheon Meat	ditto	ditto
Dutch Canned Luncheon Meat	ditto	ditto
Dutch Canned Luncheon Meat	ditto	ditto
French Canned Luncheon Meat	ditto	ditto
Canned Artificial Cream (produce of N. Ireland)	ditto	ditto
Dutch Canned Sterilized Cream	ditto	ditto
French Moroccan Canned Sardines in Oil & Tomato.	ditto	ditto
French Moroccan Canned Sardines in Oil & Tomato.	ditto	ditto
Canned Herrings in Tomato... (returned export).	ditto	ditto
Norwegian Canned Dressed Crab.	ditto	ditto
Norwegian Canned Dressed Crab.	ditto	ditto
Norwegian Canned Dressed Crab.	ditto	ditto
French Chocolate Coating	ditto	Cultures yielded a growth of both faecal and non-faecal coliform organisms.
Dutch Peeled Shrimps	ditto	No growth on direct plating aerobically and anaerobically. No salmonellae grown. Staph. aureus grown from approximately 1 gm.
Dutch Peeled Shrimps	ditto	Organisms associated with food poisoning not grown.
Dutch Peeled Shrimps	ditto	ditto
Dutch Peeled Shrimps	ditto	ditto
Dutch Peeled Shrimps	ditto	ditto
Dutch Peeled Shrimps	ditto	ditto

The following samples were forwarded to the Public Analyst, Manchester, for chemical examination:—

Nature of Sample.	Object of Examination	Result
Dutch Redcurrant Pulp	Sulphur Dioxide	2,040 parts SO ₂ per million.
Dutch Gooseberry Pulp	Sulphur Dioxide	1,440 parts SO ₂ per million.
Dutch Strawberry Pulp	Preservative	1,600 parts SO ₂ per million.
Czechoslovakian Dried Bilberries.	Lead and Zinc Content	Lead—2 parts per million ; zinc—less than 5 parts per million.
Dutch Canned Raspberries in Syrup.	Prohibited Colouring	Contained added colour but free from prohibited dyestuffs.
Czechoslovakian Canned Strawberries in Syrup.	Prohibited Colouring	Free from prohibited dyestuffs.
Czechoslovakian Dehydrated Carrots.	Lead Content	2 parts lead per million.
Czechoslovakian Dehydrated Onions.	Lead Content	2 parts lead per million.
Egyptian Dehydrated Garlic Powder.	Metallic Content	Zinc—30 parts per million; copper—15 parts per million ; lead—less than 2 parts per million ; arsenic—less than 1 part per million.
Dutch Dehydrated Beetroot	Lead, Tin and Zinc Content	Lead—less than 1 part per million; tin—less than 100 parts per million ; zinc—50 parts per million.
South African Canned Stringless Green Beans.	Prohibited Colouring	No added colouring or dyestuffs detected; copper—3.7 parts per million.
South African Canned Stringless Green Beans.	Prohibited Colouring	Prohibited dyestuffs absent ; copper—less than 2.5 parts per million.
Dutch Canned Gherkins..... (submitted in glass jar)	Preservative	Benzoic acid (in drained gherkins)—200 parts per million.
Dutch Canned Gherkins.....	Preservative	Benzoic acid—absent.
Dutch Canned Gherkins..... (submitted in glass jar)	Preservative	Benzoic acid—440 parts per million.
Indian Mango Chutney	Tin and Lead Content	Lead—5 parts per million ; tin—less than 40 parts per million.
Dutch Canned Tomato Puree	Chemical Preservative and Prohibited Colouring	Preservatives and prohibited colouring matters absent ; copper—10 parts per million ; some mould hyphae present but not enough to be "unsound".
Australian Honey	Tin and Lead Content	Parts per million, (1), (2) and (3): tin—less than 40 ; lead—less than 2.
American Oleo Stock	Tin and Lead Content	Tin—less than 40 parts per million; lead—less than 1 part per million.
Dutch White Chocolate.....	Chemical Composition	Sugar (sucrose)—37% ; fat—38% ; skim milk powder—25%.
Norwegian Canned Smoked Brisling in Olive Oil.	Tin and Lead Content	Lead—1 part per million ; tin—less than 10 parts per million.
Norwegian Canned Dressed Crab.	Tin and Lead Content	Lead—2.5 parts per million ; tin—less than 10 parts per million.
French Moroccan Sardines in Oil & Tomato (canned).	Metallic Content	Copper—3.5 parts per million ; lead—less than 2 parts per million.

Nature of Sample.	Object of Examination	Result
French Moroccan Sardines in Oil & Tomato (canned).	Metallic Content	Copper—8.5 parts per million ; lead—less than 2 parts per million.
Eireann Lollipops	Lead and Tin Content	Lead—2 parts per million ; tin—less than 80 parts per million.
Eireann Fruit Toffee	Lead and Tin Content	Lead—1.5 parts per million ; tin—less than 80 parts per million.
Eireann "Flat Blacks"..... (sugar confectionery)	Lead and Tin Content	Lead—1 part per million ; tin—less than 80 parts per million.
Eireann Barley Sugar	Lead Content	Lead—less than 1 part per million.
Eireann Rock.....	Lead Content	Lead—less than 1 part per million.

OBSERVATIONS OF THE FOOD INSPECTORS.

During the year control of grains, flour, sugar and various types of canned goods has been relinquished by the Ministry of Food and the dealing with these commodities handed back to private enterprise. This change-over has affected and augmented the duties of the Food Inspectors in various respects, but initial difficulties have been overcome and administration is proceeding satisfactorily.

The general condition in which foodstuffs are landed continues to improve, but where damage does occur on landing there appears to be a lack of urgency in dealing with it in order to prevent further damage and deterioration. Constant care is exercised to ensure that foodstuffs are transported and handled in a hygienic manner and to prevent damage and/or contamination. On several occasions recommendations have been made and received ready co-operation and attention.

A cask of beef casings from Pakistan arrived at this port by barge from Liverpool and, on examination, was found to be without an official certificate. It should be pointed out that there is no recognised official certificate for Pakistan, but there is an official certificate for the Province of Sind, which was incorporated into Pakistan in 1947. After correspondence lasting for nearly two months, the casings were finally exported to Germany. Three consignments of canned meats arrived without official certificates and were admitted after correspondence with consignors and consignees.

A break in the traditional wooden cask method of transporting Guinness was made at this port during the year. Much of the Guinness is now transported in metal containers holding 540 gallons and constructed of either aluminium or stainless steel. A valve is situated at the bottom for emptying the tank and a manhole at the top, fitted with a fine gauze-covered air inlet for preventing the admission of dirt and flies, gives access for cleansing. The internal surface of the containers is smooth and without cracks or crevices and is easily cleaned. Cleansing is carried out by steam under pressure. Much thought has gone into the planning and construction of these containers and from the public health point of view they are a big improvement on the wooden barrel which always presented difficulties as regards adequate cleansing.

A consignment of canned orange juice, which had suffered considerable damage due to a bad sea passage, was subjected to a 100% examination. As a result 162 tins were seized and destroyed and 168 tins released for mineral water manufacture.

Part of a consignment of chocolate coating was found on examination to be wet damaged. As there appeared to be no satisfactory explanation of the damage, a sample was submitted to the bacteriologist. The report stated that cultures from the chocolate yielded growths of faecal and non-faecal coliform organisms. The chocolate was destroyed.

Substantial quantities of damaged sugar and sweepings were released, under guarantee, for the purposes of re-refining.

Although all food imports arriving by coastwise vessels are subjected to inspection, seizures are few. This is due to the fact that the foodstuffs are generally newly prepared and little damage is sustained during the short sea passages.

Much trouble had been experienced with barge traffic arriving at the docks and discharging foodstuffs to the quay without previous notice of their impending arrival. Consultation during September with the Manchester Ship Canal Co. led to the establishment of a satisfactory system of notification.

During the year new official certificates respecting whale meat, meat and meat products have been received for Faroe Isles, Falkland Isles, Greece, and Sudan, also replacement certificates for Bechuanaland, Norway and Eritrea.

Representative samples of foodstuffs were submitted for bacteriological examination and chemical analysis. The results are shown on pages 35—37.

On several occasions, at the request of shipowners and agents, your Food Inspectors have supervised the disposal of rejected ships' stores.

Cordial relations and co-operation has continued with the representatives of numerous firms and departments.

W. H. JENNINGS.

T. BORROWS.